

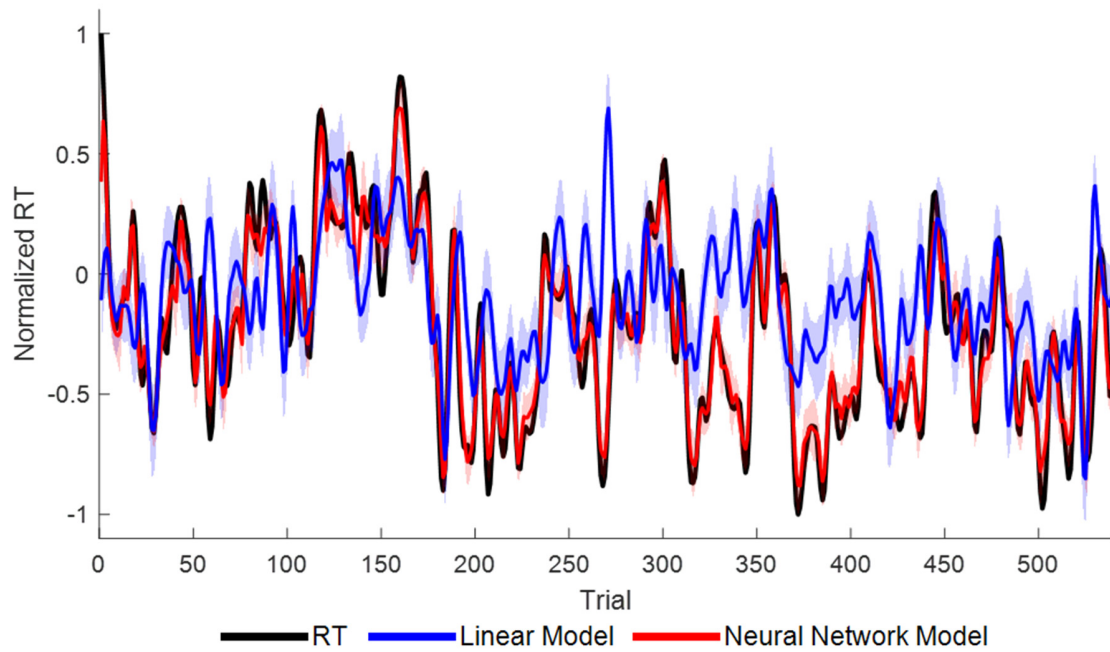
**Supplementary Information for**

**Using Neural Networks to Uncover the Relationship Between  
Highly Variable Behavior and EEG During a Working Memory  
Task with Distractors**

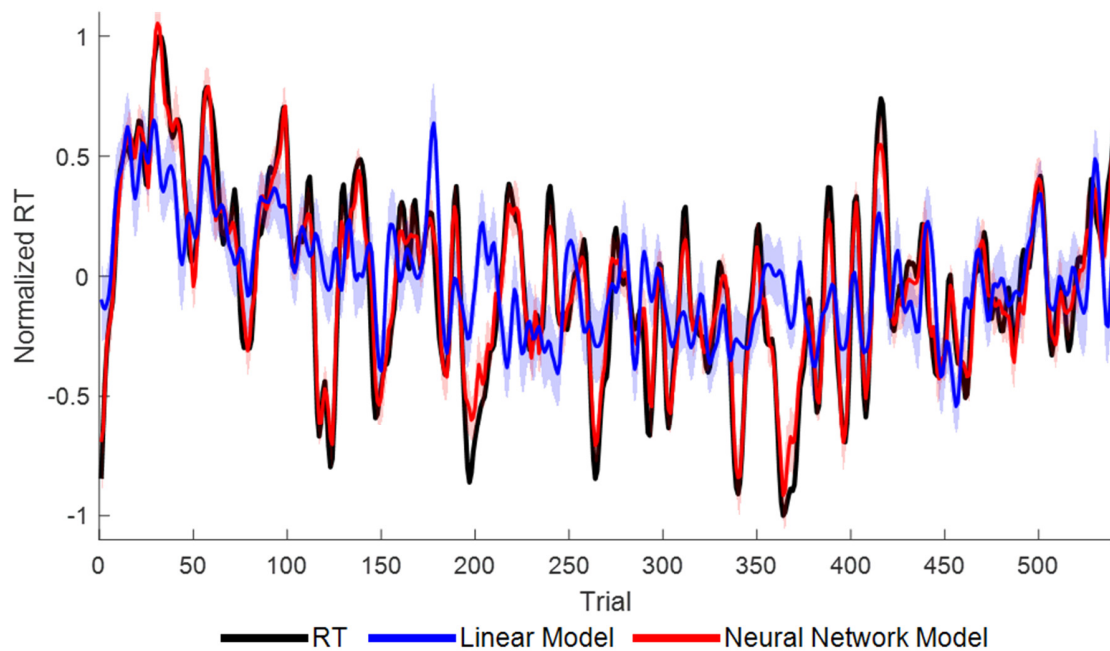
**This PDF file includes:**

Figures S1 to S16

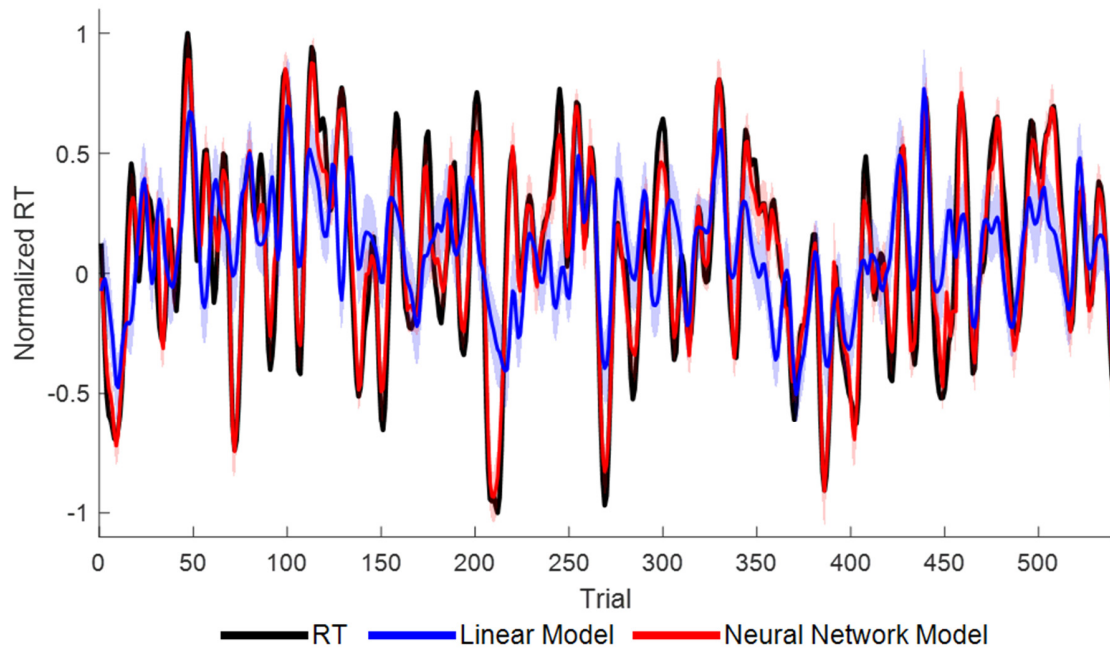
### Fitted Participant – Models



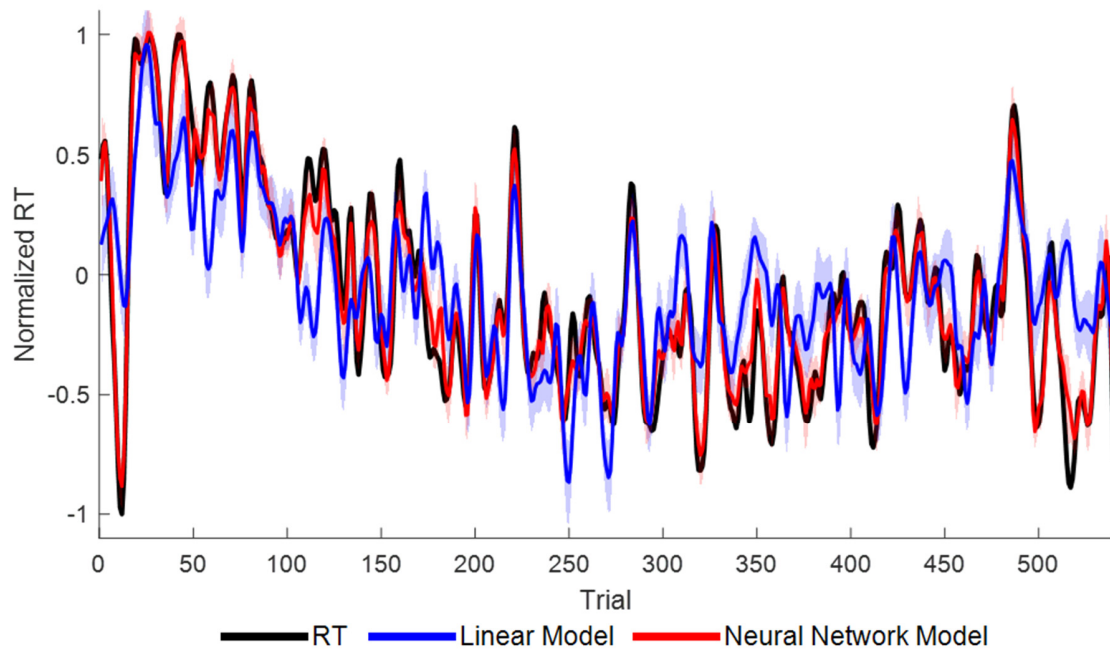
**Figure S1.** Participant 1 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.



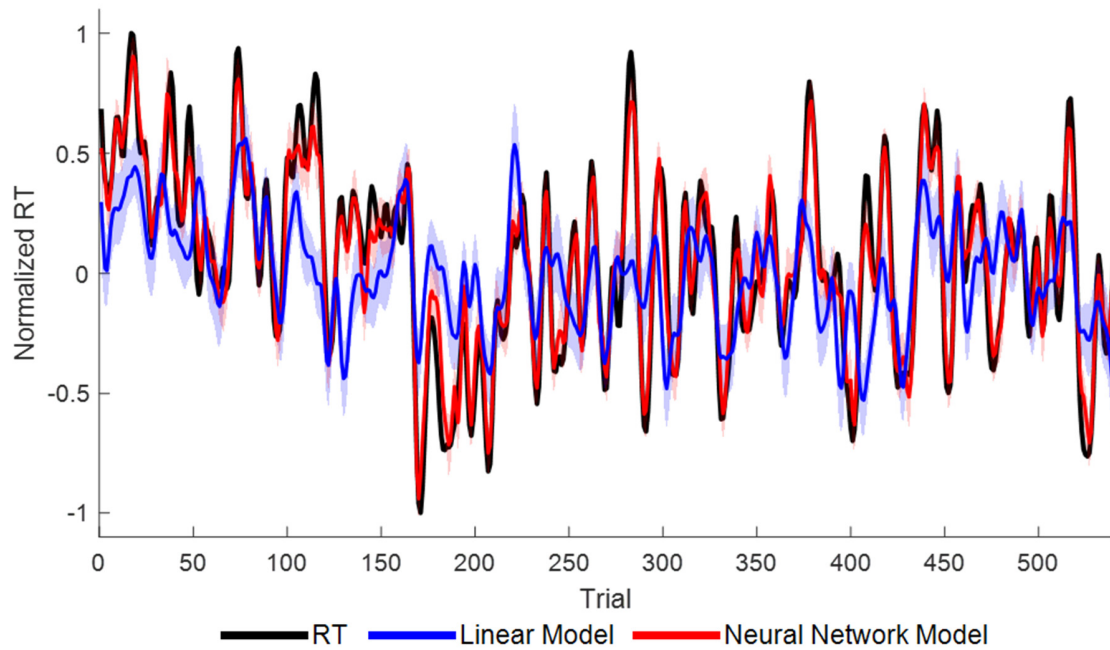
**Figure S2.** Participant 2 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.



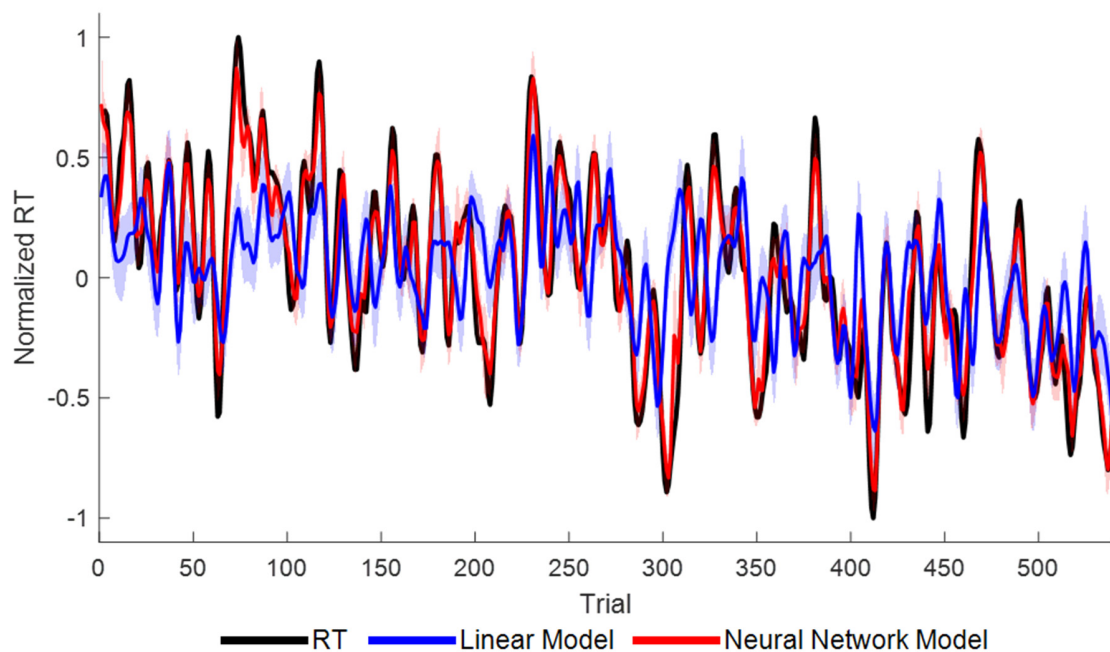
**Figure S3.** Participant 3 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.



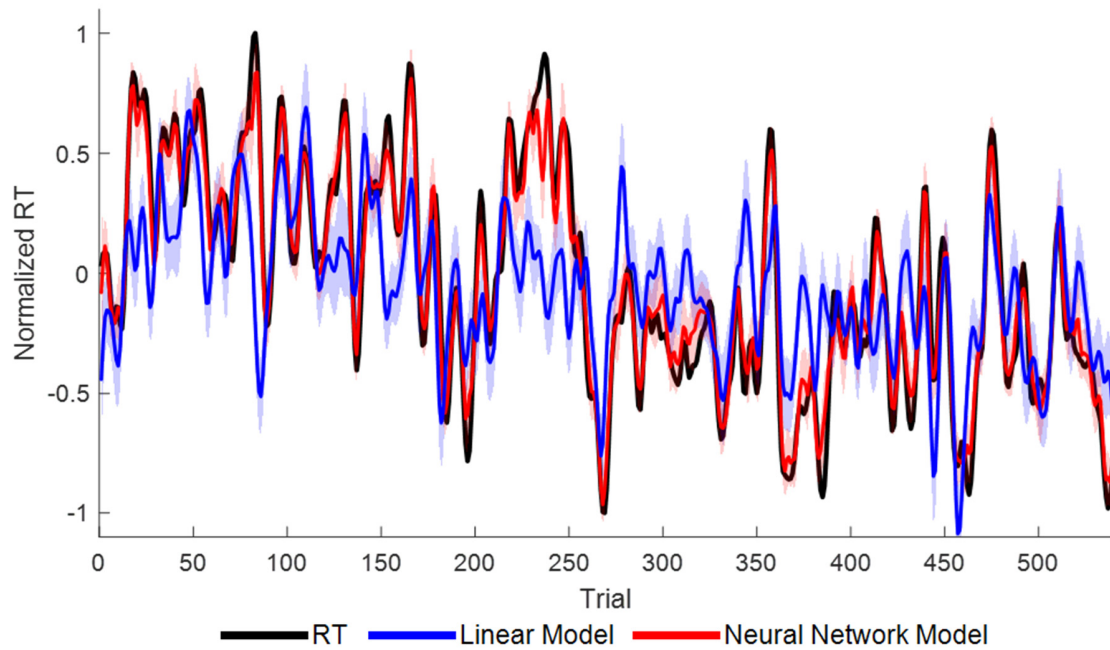
**Figure S4.** Participant 4 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.



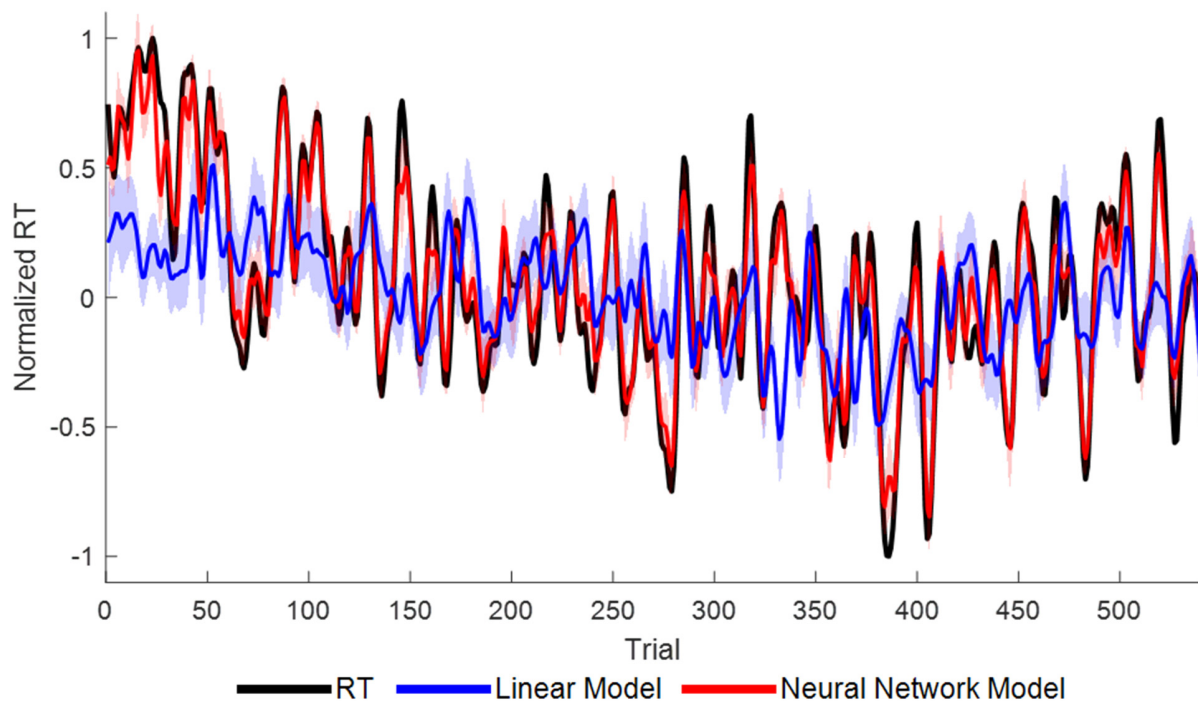
**Figure S5.** Participant 5 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.



**Figure S6.** Participant 6 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.

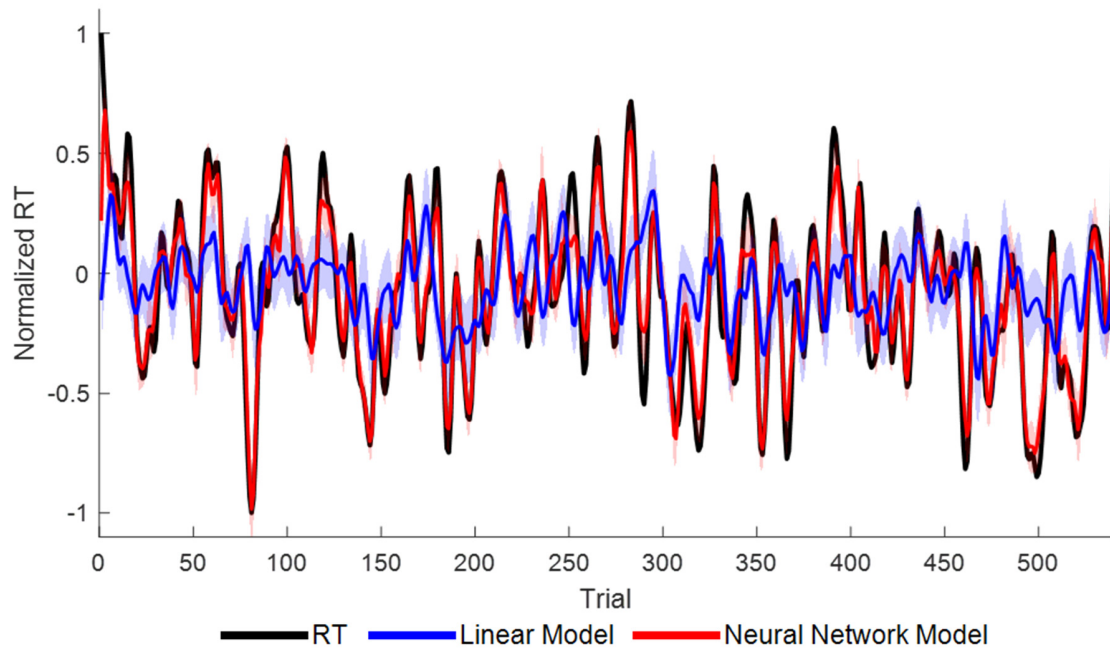


**Figure S7.** Participant 7 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.

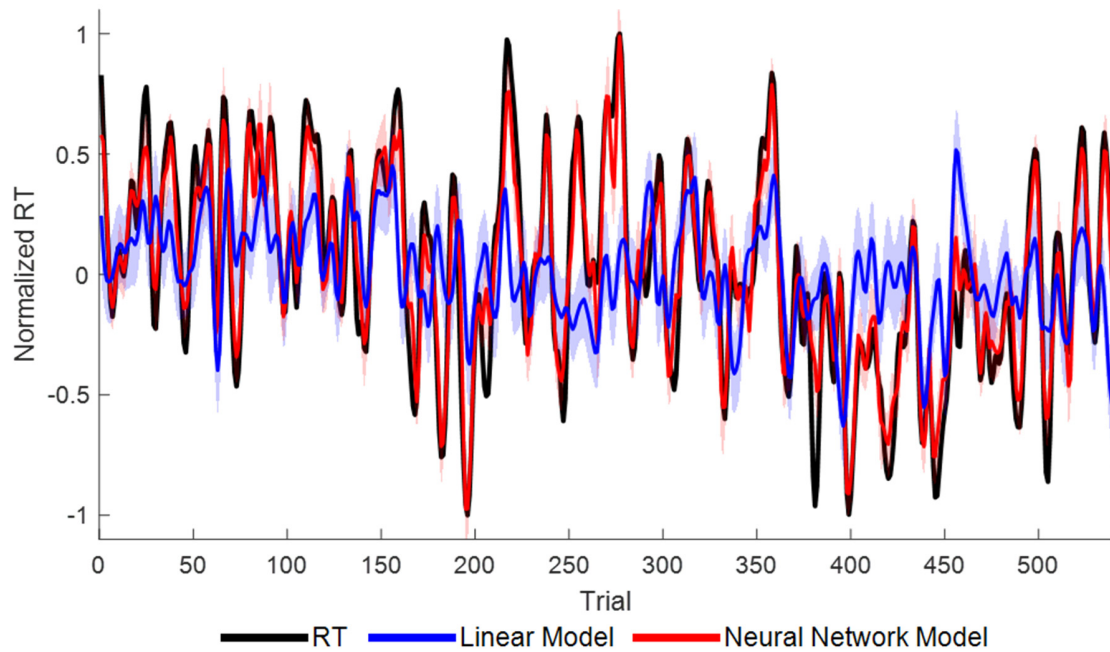


**Figure S8.** Participant 8 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.

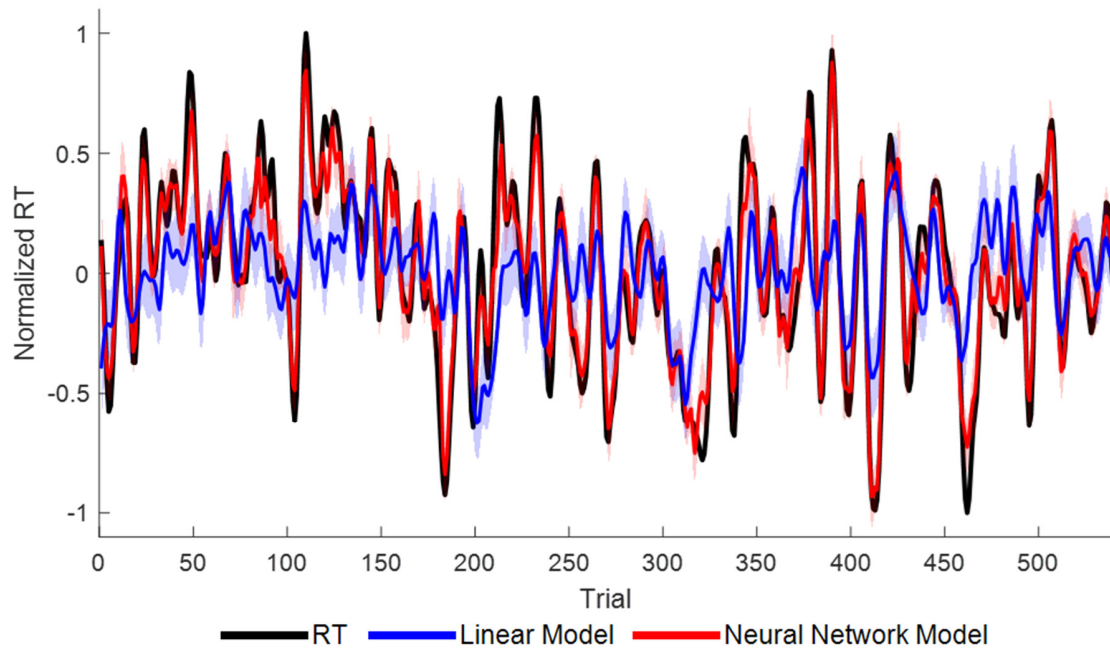




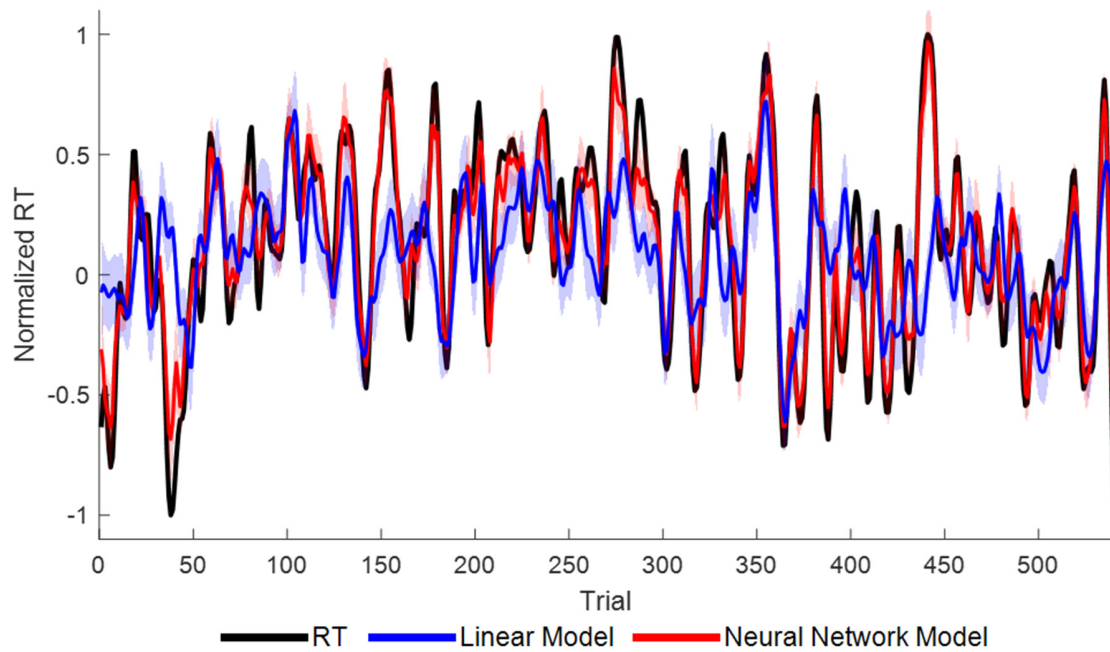
**Figure S9.** Participant 9 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.



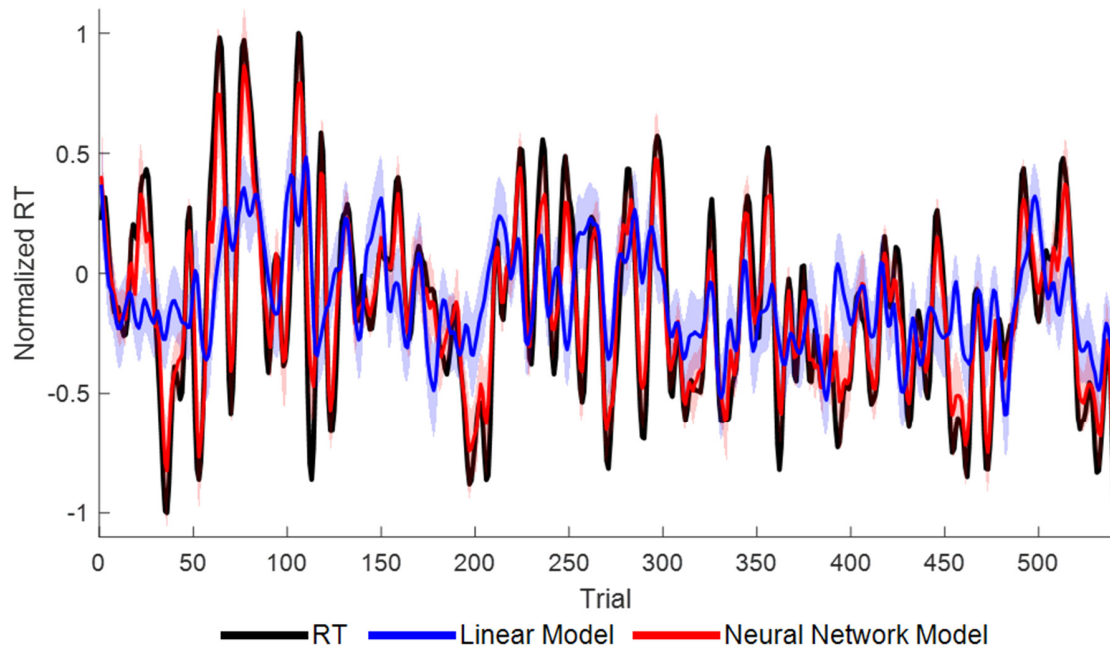
**Figure S10.** Participant 10 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.



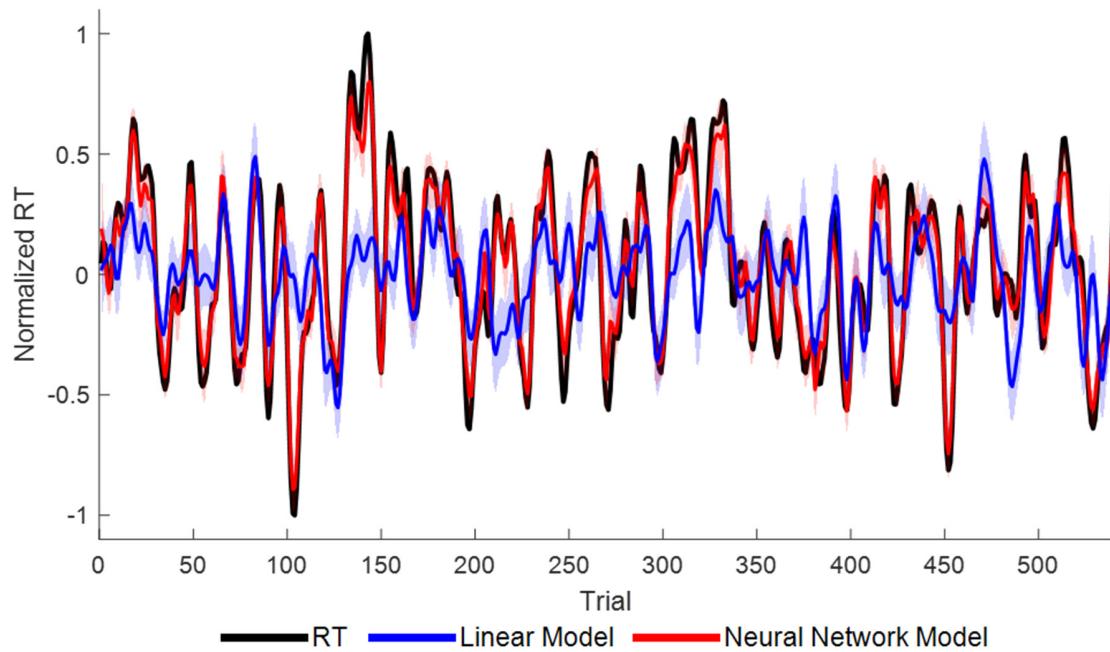
**Figure S11.** Participant 11 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.



**Figure S12.** Participant 12 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.

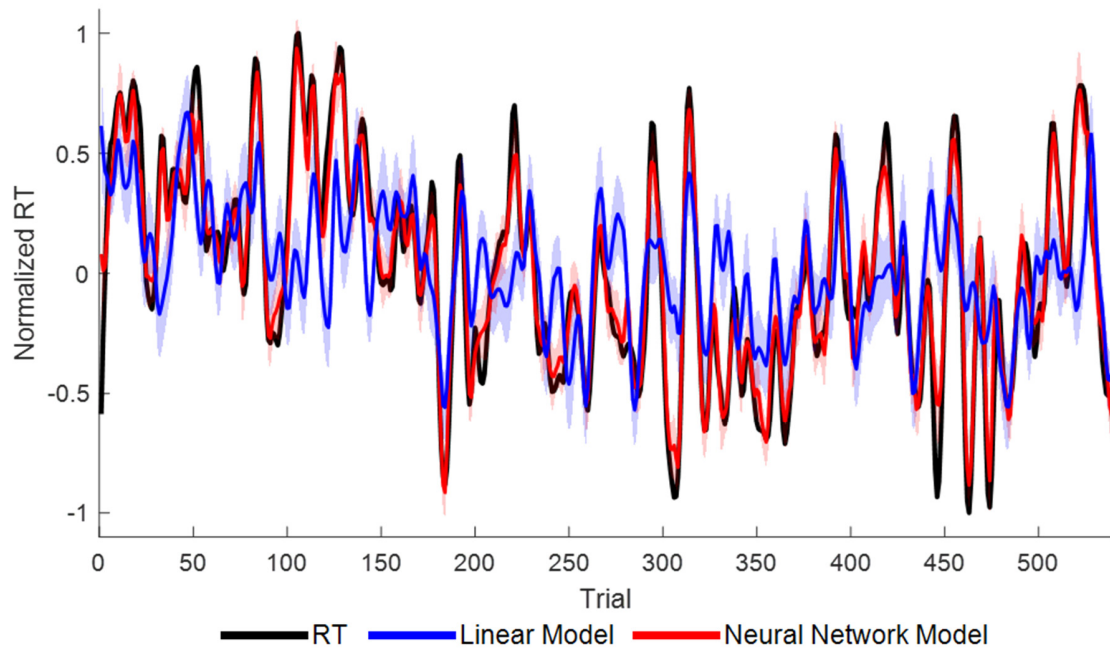


**Figure S13.** Participant 13 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.

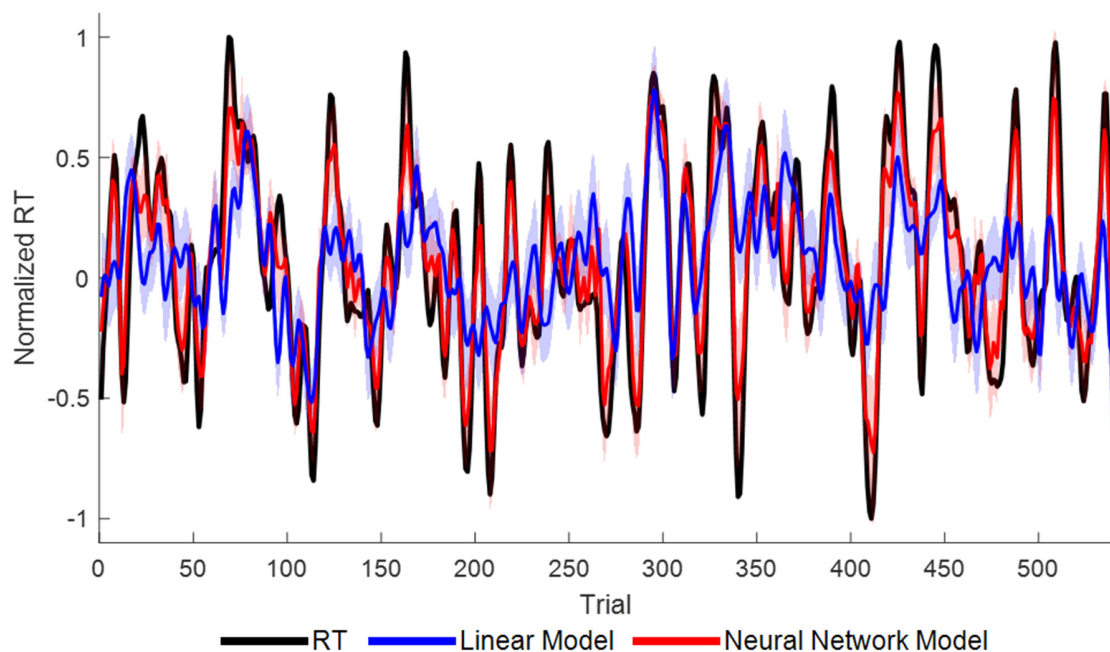


**Figure S14.** Participant 14 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.





**Figure S15.** Participant 15 predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.



**Figure S16.** Participant 16 fitted predictions for each model are overlaid on top of the normalized RT. For the linear model, the shaded bounds represent the 95% confidence intervals generated by the GLM. For the neural network model, the shaded bounds represent one standard deviation over the 5000 iterations.